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1. Employment and Education

Statistical Sciences Group, **Los Alamos National Laboratory**

Project Leader, Complex System Health Assessment	October 2009 to present
Project Leader, Munitions Stockpile Reliability Assessment	September 2006 to present
Research Scientist 4	July 2008 to present
Technical Staff Member	June 2004 to July 2008

Department of Industrial Engineering, **Arizona State University**

Visiting Scholar	August to December 2002

Department of Statistics, **Virginia Tech**

Associate Professor	August 2000 to June 2004
Assistant Professor	August 1996 to July 2000

Department of Statistical and Actuarial Sciences, **University of Western Ontario**

Assistant Professor	January 1994 to June 1996

Six Sigma Master Black Belt	Certified by Straightline Solutions	2009
Doctor of Philosophy	University of Waterloo Dept. of Statistics (Supervisor: C.F.J. Wu)	1994
Master of Science	University of Toronto Dept. of Statistics	1990
Bachelor of Education	University of Western Ontario Major: Senior/Intermediate Mathematics and Computers	1989
Bachelor of Mathematics	University of Waterloo Majors: Statistics, Teaching Option Minor: Computer Science	1989

2. Research Activity

Book

Myers, R.H., Montgomery, D.C., Anderson-Cook, C.M. (2009). ***Response Surface Methodology: Process and Product Optimization Using Designed Experiments***. 3rd Ed. New York: Wiley.

Refereed Journal Articles – Statistical

1995-1999

1. Anderson, C.M. & Wu, C.F.J. (1995). "Measuring Location Effects from Factorial Experiments with a Directional Response". **International Statistical Review** 63, p. 345-363.
2. Anderson, C.M. & Wu, C.F.J. (1996). "Dispersion Measures and Analysis for Factorial Directional Data with Replicates". **Applied Statistics** 45, 47-61.
3. Anderson-Cook, C.M. (1997). "An Extension to Modeling Cylindrical Variables". **Statistics and Probability Letters** 35, 215-223.

4. Anderson-Cook, C.M. & Thornton, T. (1998). "Measuring Hockey's Special Team Efficiency". **Chance** 11 No. 4 26-34.
5. Anderson-Cook, C.M. & Thornton, T. (1998). "Response to Letter to the Editor: Shorthanded" **Chance** 12 No. 2 3-5.
6. Anderson-Cook, C.M. (1998). "Designing a First Experiment: A Project for Design of Experiment Courses". **The American Statistician** 52 No. 4 338-342.
7. Anderson-Cook, C.M. (1999). "An In-Class Demonstration to Help Understand Confidence Intervals". **Journal of Statistical Education** 7, No. 3 (8 printed pages).
8. Anderson-Cook, C.M. (1999). "A Tutorial on One-Way Analysis of Circular-Linear Data". **Journal of Quality Technology** 31 No.1 109-199.

2000-2001

9. Anderson-Cook, C.M. (2000). "A Second Order Model for Modeling Cylindrical Data". **Journal of Statistical Computing and Simulation** 66, 51-65.
10. Anderson-Cook, C.M. (2000). "An Industrial Example Using One-Way Analysis of Circular-Linear Data**". Journal of Computational Statistics and Data Analysis** 33, No. 1, 45-57.
11. Anderson-Cook, C.M. & Noble, R.B. (2001). "An Alternate Model for Cylindrical Data". **Nonlinear Analysis. Series A** 47, 2011-2022.
12. Anderson-Cook, C.M.& Dorai-Raj, S. (2001). "An Active Learning In-Class Demonstration of Good Experimental Design". **Journal of Statistical Education** 9, No. 1 (12 printed pages).
13. Anderson-Cook, C.M. (2001). "Understanding the Influence of Several Factors on a Cylindrical Response". **Journal of Quality Technology** 33,167-180.

2003

14. Zahran, A. & Anderson-Cook, C.M (2003) “A General Equation and Optimal Design for a 2-Factor Restricted Region”. **Statistics and Probability Letters** 64 9-16.
15. Otieno, B.S. & Anderson-Cook, C.M (2003) “A More Efficient Way of Obtaining a Unique Median Estimate for Circular Data” **Journal of Modern Applied Statistical Methods** 2, 168-176.
16. Zahran, A., Anderson-Cook, C.M., Myers, R.H. & Smith, E.P. (2003) "Modifying 2^2 Factorial Designs to Accommodate a Restricted Design Space". **Journal of Quality Technology** 35 387-392.
17. Zahran, A., Anderson-Cook, C.M. and Myers, R.H. (2003) “Fraction of Design Space to Assess the Prediction Capability of Response Surface Designs”. **Journal of Quality Technology** 35 377-386.
18. Anderson-Cook, C.M. & Dorai-Raj, S. (2003) “Making Power and Sample Size Relevant and Accessible to Students in Introductory Statistics Courses using Applets”. **Journal of Statistical Education** (12 printed pages).

2004

19. Goldfarb, H.B., Borror, C.M., Montgomery, D.C., Anderson-Cook, C.M. (2004) “Three-Dimensional Variance Dispersion Graphs for Mixture-Process Experiments”. **Journal of Quality Technology** 36 109-124.
20. Goldfarb, H.B., Anderson-Cook, C.M., Borror, C.M., Montgomery, D.C. (2004) “Fraction of Design Space to Assess the Prediction Capability of Mixture and Mixture-Process Designs”. **Journal of Quality Technology** 36 169-179.
21. Goldfarb, H.B., Borror, C.M., Montgomery, D.C., Anderson-Cook, C.M. (2004) “Evaluating Mixture-Process Designs with Control and Noise Variables”. **Journal of Quality Technology** 36 245-262.
22. Drain, D., Carlyle, W.M., Montgomery, D.C., Borror, C.M., Anderson-Cook, C.M. (2004) “A Genetic Algorithm Hybrid for Constructing Optimal Response Surface Designs”. **Quality and Reliability Engineering International** 20 637-650.

23. Anderson-Cook, C.M., Goldfarb, H., Borror, C., Montgomery, D.C., Canter, K.G., & Twist, J.A. (2004) "Mixture and Mixture-Process Variables Experiments for Pharmaceutical Applications". **Pharmaceutical Statistics** 3: 247-260.
24. Anderson-Cook, C.M., Patterson, A., Hoerl, R. (2004) "A Structured Problem Solving Course for Graduate Students: Exposing Students to Six Sigma as Part of their University Training". **Quality and Reliability Engineering International** 21 249-256.

2005

25. Goldfarb, H.B., Borror, C.M., Montgomery, D.C., Anderson-Cook, C.M. (2005) "Using Genetic Algorithms to Generate Mixture-Process Experimental Designs Involving Control and Noise Variables". **Journal of Quality Technology** 37 60-74.
26. Otieno, B.S. & Anderson-Cook, C.M (2005) "Effect of Position of an Outlier on the Influence Curve of the Measures of Preferred Direction for Circular Data". **Journal of Modern Applied Statistical Methods** 4 81-89.
27. Anderson-Cook, C.M. & Prewitt, K. (2005) "Some Guidelines for Using Nonparametric Methods for Modeling Data from Response Surface Designs". **Journal of Modern Applied Statistical Methods** 4 106-119.
28. Ozol-Godfrey, A., Anderson-Cook, C.M., Montgomery, D.C. (2005) "Fraction of Design Space Plots for Examining Model Robustness". **Journal of Quality Technology** 37 223-235.
29. Park, Y-J, Richardson, D.E., Montgomery, D.C., Ozol-Godfrey, A., Borror, C.M., Anderson-Cook, C.M., (2005) "Prediction Variance Properties of Second-Order Response Surface Designs for Cuboidal Regions". **Journal of Quality Technology** 37 253-266.
30. Drain, D., Borror, C.M., Anderson-Cook, C.M., Montgomery, D.C. (2005) "Response Surface Design for Correlated Noise Variables". **Journal of Probability and Statistical Science** 3 247-281.

2006

31. Liang, L., Anderson-Cook, C.M., Robinson, T.J. (2006) "Fraction of Design Space Plots for Split-Plot Designs" **Quality and Reliability Engineering International** 22 275-289.
32. Otieno, B.S. & Anderson-Cook, C.M (2006) "Measures of Preferred Direction for Environmental and Ecological Circular Data". **Environmental and Ecological Statistics** 13 311-324.
33. Liang, L., Anderson-Cook, C.M., Robinson, T.J., Myers, R.H. (2006) "Three-Dimensional Variance Dispersion Graphs For Split-Plot Designs". **Journal of Computational and Graphical Statistics** 15 757-778.
34. Otieno, B.S. & Anderson-Cook, C.M (2006) "Hodges-Lehmann Estimator of Preferred Direction for Circular Data". **Journal of Statistics and Applications** 1 155-169.

2007

35. Ozol-Godfrey, A., Anderson-Cook C. M. (2007) "Fraction of Design Space Plots for Examining Mixture Design Robustness to Measurement Errors" **Journal of Statistics and Applications** 1 171-183.
36. Anderson-Cook, C.M., Graves, T., Hamada, M., Hengartner, N., Johnson, V., Reese, C.S., Wilson, A.G. (2007) "Bayesian Stockpile Reliability Methodology for Complex Systems" **Journal of the Military Operations Research Society** 12 25-37.
37. Liang, L., Anderson-Cook, C.M., Robinson, T.J. (2007) "Cost Penalized Estimation and Prediction Evaluation for Split-Plot Designs" **Quality and Reliability Engineering International** 23 577-596.

2008

38. Pickle, S.M., Robinson, T.J., Birch, J.B., Anderson-Cook, C.M. (2008) "A Semi-Parametric Approach to Robust Parameter Design" **Journal of Statistical Planning and Inference** 138 114-131.
39. Ozol-Godfrey, Anderson-Cook, C.M., Robinson, T.J. (2008) "Fraction of Design Space Plots for Generalized Linear Models" **Journal of Statistical Planning and Inference** 138 203-219.

40. Parker, P.A., Anderson-Cook, C.M., Robinson, T.J., Liang, L. (2008) "Robust Split-Plot Designs" **Quality and Reliability Engineering International** 24 107-121.
41. Anderson-Cook, C.M., Graves, T., Hengartner, N., Klamann, R., Wiedlea, A.K., Wilson, A.G., Anderson, G., Lopez, G. (2008) "Reliability Modeling using Both System Test and Quality Assurance Data" **Journal of the Military Operations Research Society** 13 5-18.
42. Anderson-Cook, C.M., Graves, T.G., Hamada, M. (2008) "Resource Allocation: Sequential Design for Analyses Involving Several Types of Data" IEEE Xplore Refereed Proceedings of IEEM Singapore (5 pages) http://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=4737933&isnumber=4737816

2009

43. Anderson-Cook, C.M., Borror, C.M., Montgomery, D.C. (2009) "Response Surface Design Evaluation and Comparison" (with discussion and rejoinder) **Journal of Statistical Planning and Inference** 139 629-641, 671-674.
44. Anderson-Cook, C.M. (2009) "Evaluating the Series or Parallel Structure Assumption for System Reliability" **Quality Engineering** 21 88-95.
45. Robinson, T.J., Anderson-Cook, C.M., Hamada, M. (2009) "Bayesian Analysis of Split-Plot Experiments with Non-Normal Responses for Evaluating Non-Standard Performance Criteria" **Technometrics** 51 56-65.
46. Anderson-Cook, C.M., Borror, C.M., Jones, B. (2009) "Graphical Tools for Assessing the Sensitivity of Response Surface Designs to Model Misspecification" **Technometrics** 51 75-87.
47. Anderson-Cook, C.M., Graves, T.G., Hamada, M.S. (2009) "Resource Allocation for Reliability of a Complex System with Aging Components" **Quality and Reliability Engineering International** 25 481-494.
48. Anderson-Cook, C.M. (2009) "Opportunities and Issues in Multiple Data Type Meta-Analyses" (with discussion and rejoinder) **Quality Engineering** 21 241-253,260-261.
49. Anderson-Cook, C.M., Robinson, T.J. (2009) "A Designed Screening Study with Prespecified Combinations of Factor Settings" **Quality Engineering** 21 392-404.
50. Abraham, A., Robinson, T.J., Anderson-Cook, C.M. (2009) "A Graphical Approach to Robust Design" **Quality Technology and Quantitative Management** 6 235-253.
51. Li, J., Liang, L., Borror, C.M., Anderson-Cook, C.M., Montgomery, D.C. (2009) "Graphical Summaries to Compare Prediction Variance Performance for Variations of the Central Composite Design for 6 to 10 Factors**" Quality Technology and Quantitative Management** 6 433-449.

2010

52. Monroe, E.M., Pan, R., Anderson-Cook, C.M., Montgomery, D.C., Borror, C.M. (2010) "Sensitivity Analysis of Optimal Designs for Accelerated Life Testing" **Journal of Quality Technology** 42 121-135.
53. Graves, T.L., Anderson-Cook, C.M., Hamada, M.S. (2010) "Reliability Models for Almost-Series and Almost-Parallel Systems" **Technometrics** 52 160-171**.**
54. Wilson, A.G., Anderson-Cook, C.M. (2010) "Discussion of 'Reliability Growth Management Metrics and Statistical Methods for Discrete-Use Systems' by Hall, Ellner, and Mosleh" **Technometrics** 52 397-400.
55. Anderson-Cook, C.M., Lu, L., Morzinski, J. (2010) "Mixed Messages: Prevent confusion about statistical terms that have multiple meanings and connotations" **Quality Progress** November 2010 36-43.
56. Lu, L., Anderson-Cook, C.M. (2010) "Prediction of Reliability of an Arbitrary System from a Finite Population" **Quality Engineering** (in press).
57. Robinson, T.J., Anderson-Cook, C.M. (2010) "A Closer Look at D-Optimality for Screening Designs" **Quality Engineering** (in press).

58. Monroe, E.M., Pan, R., Anderson-Cook, C.M., Montgomery, D.C., Borror, C.M. (2010) “A Generalized Linear Model Approach to Designing Accelerated Life Test Experiments” **Quality and Reliability Engineering International** (in press).
59. Jang, D.-H., Anderson-Cook, C.M. (2010) “Fraction of Design Space Plots for Evaluating Ridge Estimators in Mixture Experiments” **Quality and Reliability Engineering International** (in press).
60. Lu, L., Anderson-Cook, C.M. (2010) “Using Age and Usage for Prediction of Reliability of an Arbitrary System from a Finite Population” **Quality and Reliability Engineering International** (in press).
61. Lu, L., Anderson-Cook, C.M., Otieno, S., Hamada, M.S. (2010) “Metrics, Design and Analysis of Simulation Studies for Evaluating Directional Data Methods” **Journal of Statistical Theory and Applications** (in press).
62. Collins, D.H., Anderson-Cook, C.M., Huzurbazar, A.V. (2010) "System Health Assessment" **Quality Engineering** (in press).
63. Wilson, A.G., Anderson-Cook, C.M., Huzurbazar, A.V. (2010) “A Case Study for Quantifying System Reliability and Uncertainty” **Reliability Engineering & System Safety** (in press)
64. Anderson-Cook, C.M., Crowder, S., Huzurbazar, A.V., Lorio, J., Ringland, J., Wilson, A.G. (2010) “Quantifying Reliability Uncertainty from Catastrophic and Margin Defects: A Proof of Concept” **Reliability Engineering & System Safety** (in press)
65. Lu, L., Anderson-Cook, C.M., Wilson, A.G. (2010) “Choosing a Consumption Strategy for A Population of Systems based on Reliability” **Proceedings of the Institution of Mechanical Engineers, Part O, Journal of Risk and Reliability** (in press)

Refereed Journal Articles - Interdisciplinary

1. Anderson, C.M. & Cook, G.S. (1990). "A Stock Market Project". **Ontario Mathematics Gazette** 20, p.14-19.
2. Anderson-Cook, C.M., M.M. Alley, R. Noble, R. Khosla (1999) "Phosphorous and Potassium Fertilizer Recommendation Variability for Two Mid-Atlantic Coastal Plain Fields". **Soil Sciences Society of America Journal** 63, 1740-1747.
3. Slesinski, A.J., Claus, J.R., Anderson-Cook, C.M., Eigel, W.E., Graham, P.P Lenz, G.E. and Noble, R.B. (2000) "Response Surface Methodology for Reduction of Pink Color Development in Cooked, Uncured, Ground Turkey Breast by the Addition of Dairy Proteins." **Journal of Food Sciences** 65, 421-4227.
4. Slesinski, A.J., Claus, J.R., Anderson-Cook, C.M., Eigel, W.E., Graham, P.P Lenz, G.E. and Noble, R.B. (2000) Ability of Various Dairy Proteins to Reduce Pink Color Development in Cooked Ground Turkey Breast. **Journal of Food Sciences** 65, 417-420.
5. Sheldon, K.E., Anderson-Cook, C.M., O'Brien, W.F. (2001). "Analysis Methods to Control Performance Variability and Costs in Aircraft Turbine Engine Manufacturing." **American Helicopter Society Conference Proceedings** (on CD)
6. Kirkpatrick, T., Weyers, R.E., Sprinkel, M.M., Anderson-Cook, C.M. (2002) "Impact of Specification changes on chloride Induced Corrosion Service Life of Bridge Deck." **Cement and Concrete Research** 32 (8) 1189-1197.
7. Anderson-Cook, C.M. , M. M. Alley, J.K.F. Roygard, R. Khosla, R.B. Noble, J.A. Doolittle (2002) "Differentiating Soil Types Using Electromagnetic Induction and Crop Yield Maps." **Soil Sciences Society of America Journal** 66 1562-1570.
8. Kirkpatrick, T., Weyers, R.E., Anderson-Cook, C.M., Sprinkel, M.M. (2002) "Probabilistic Model for the Chloride Induced Corrosion Service Life of Bridge Decks." **Cement and Concrete Research** 32 (12) 1943-1960.

9. Jones, B.P., Holshouser, D.L., Alley, M.M., Roygard, J.K.F., Anderson-Cook, C.M. (2002) "Double-Crop Soybean Leaf Area and Yield Responses to Mid-Atlantic Soils and Cropping Systems." **Agronomy Journal** 95: 436-435.
10. Schilling, M.W., Marriott, N.G., Acton, J.C., Anderson-Cook, C.M., Duncan, S.E., Alvarado, C.Z. (2002) "Utilization of Response Surface Modeling to Evaluate the Effects of Non-Meat Adjuncts and Combinations of PSE and RFN Pork on the Texture of Boneless Cured Pork" **Journal of Muscle Foods.** 14:143-161.
11. Gantovnik, V.B., Anderson-Cook, C.M., Gurdal, Z., Watson, L.T. (2003) "A Genetic Algorithm with Memory for Mixed Discrete-Continuous Design Optimization." **Journal of Computers & Structures** 81: 2003-2009.
12. Schilling, M.W., Marriott, N.G., Acton, J.C., Anderson-Cook, C.M., Alvarado, C.Z., Wang, H. (2003) "Utilization of Response Surface Modeling to Evaluate the Effects of Non-Meat Adjuncts and Combinations of PSE and RFN Pork on Water Holding Capacity and Cooked Color in the Production of Boneless Cured Pork". **Journal of Meat Science.** 66(2):371-381.
13. Adams, D.B., Watson, L.T., Gurdal, Z., Anderson-Cook, C.M. (2004) "Genetic Algorithm Optimization and Blending of Composite Laminates by Locally Reducing Laminate Thickness." **Advances in Engineering Software** 35 35-43.
14. Sheldon, K.E., Anderson-Cook, C.M. & O'Brien, W.F. (2004) "Using Computer Modeling to Optimize Cost and Maintain Performance Constraints for Production of Aircraft Turbine Engines." **Quality and Reliability Engineering International** 20 541-551.
15. Gantovnik, V.B., Gurdal, Z., Watson, L.T., Anderson-Cook, C.M. (2005) "Genetic Algorithm for Mixed Integer Nonlinear Programming Problems Using Separate Constraint Approximations." **American Institute of Aeronauticas and Astronautics Journal** 43 1844-1849.
16. Silver, G.L., Anderson-Cook, C.M. (2005) "Hydrogen Generation in Nitric Acid Solutions of Plutonium." **Journal of Radioanalytical and Nuclear Chemistry** 266 373-376.
17. Lucko, G., Anderson-Cook, C.M., Vorster, M.C. (2006) "Statistical Considerations for Predicting Residual Value of Heavy Equipment" **Journal of Construction Engineering and Management** 132 723-732.
18. Dougherty, M., Dymond, R.L., Grizzard, T.J., Zipper, C.E., Godrej, A.N., Randolph, J., Anderson-Cook, C.M. (2006) "Empirical Modeling of Hydrologic and NPS Pollutant Flux in an Urbanized Basin" **Journal of the American Water Resources Association** 42 1405-1419.
19. Ramniceanu, A., Weyers, R.E., Anderson-Cook, C., Brown, M.C. (2006) "Measuring the Field Corrosion Activity of Bridge Decks Built with Bare and Epoxy Coated Steel" **Journal of the ASTM International** 3, No. 8 (16 pages).
20. Lucko, G., Vorster, M.C., Anderson-Cook, C.M. (2007) "The Unknown Element of Owning Costs – Impact of Residual Value" **Journal of Construction Engineering and Management** 133 3-9.

Submitted Articles

1. Pintar, A., Anderson-Cook, C.M., Wu, H. (2010) "A Prediction-Based Model Selection Approach"
2. Robinson, T.J., Pintar, A., Anderson-Cook, C.M., Hamada, M.S. (2010) "A Bayesian Approach to the Analysis of Split-Plot Product Arrays and Optimization in Robust Parameter Design"
3. Lu, L., Anderson-Cook, C.M., Robinson, T.J. (2010) "Optimization of Designed Experiments Based on Multiple Criteria Utilizing a Pareto Frontier"
4. Chapman, J., Morris, M., Anderson-Cook, C.M. (2010) "A Computationally Efficient Strategy for Evaluating the Estimation Improvement for Candidates in a Resource Allocation Study"
5. Izraelevitz, A., Anderson-Cook, C.M., Hamada, M.S. (2010) "Illustrating the Use of Statistical Experimental Design and Analysis for Multiresponse Prediction and Optimization"

6. Lu, L., Anderson-Cook, C.M., Robinson, T.J. (2010) “A Case Study to Demonstrate Pareto Frontiers for Selecting a Best Response Surface Design with Simultaneously Optimizing Multiple Criteria”
7. Lu L., Anderson-Cook, C.M. (2010) “Optimization of Designed Experiments Based on Multiple Criteria Utilizing a Pareto Frontier"

Book Chapter

1. Anderson-Cook, C.M. (1996). "Analysis of Location and Dispersion Effects from a Factorial Experiment with a Directional Response”. ***Handbook of Statistics****, Vol 13,* Chapter 8, 241-259.
2. Smith, E.P. & Anderson-Cook, C.M. (2000). "Regression Methods in Ecotoxicology", ***Statistics in Ecotoxicology***, Editor: T. Sparks, Chapter 5, 119-147.
3. Anderson-Cook, C.M. & Ozol-Godfrey, A. (2006) “Using Fraction of Design Space Plots for Informative Comparisons between Designs”, ***Modern Advances in Response Surface Methodology*** Editor: Andre’ Khuri, Chapter 15, 379-408.
4. Robinson, T.J. & Anderson-Cook, C.M. (2010) “Robust Parameter Designs”, ***Design and Analysis of Experiments, Volume 3: Special Designs and Applications*** Editor: Klaus Hinkelmann (to appear)
5. Otieno, B.S. & Anderson-Cook, C.m. (2010) “Design and Analysis of Experiments for Directional Data” , ***Design and Analysis of Experiments, Volume 3: Special Designs and Applications*** Editor: Klaus Hinkelmann (to appear)

Refereed Abstracts

1. AJ Slesinski, JR Claus, CM Anderson-Cook, WN Eigel, PP Graham, GE Lenz, RB Noble (1999) Reduction of Pink Color Development in Cooked, Uncured, Ground Turkey Breast by the Addition of Dairy Proteins. ***Institute of Food Technologists Abstract*** 65C-18.
2. AD Krahn, GJ Klein, R Yee, C Anderson-Cook, M Basta, CA Le Feuvre, M Rosenbaum. (1996) Do All Individuals have Dual Pathways? ***Canadian Journal of Cardiology***:12(E):303.

Other Articles

1. Anderson-Cook, C.M. (1999) "The Power of Being … Positive, Positive, Positive", ***Caucus for Women in Statistics Newsletter***, Winter Edition.
2. Anderson-Cook, C.M. (2000) "Life After the Gertrude Cox Scholarship Award”, ***AMSTAT News***, September 2000, 30-31.
3. Anderson-Cook, C.M. & Otieno, B.S. (2002) “Circular Data” in the ***Encyclopedia of Environmetrics***, (Editors A.H. El-Shaarawi & W.W. Piegorsch), Vol 1, 338-340.
4. Anderson-Cook, C. (2004) “Statistics Roundtable: Beyond Sample Size”, ***Quality Progress***, December 2004, 88-90.
5. Anderson-Cook, C. (2005) “Statistics Roundtable: How to Choose the Appropriate Design”, ***Quality Progress***, October 2005, 80-82.
6. Anderson-Cook, C. (2005) “New Directions for Six Sigma in the New Millennium”, **Quality and Reliability Engineering International**, 21 iii-iv.
7. Anderson-Cook, C. (2006) “Statistics Roundtable: What and When to Randomize”, ***Quality Progress***, March 2006, 59-62.
8. Anderson-Cook, C. (2006) “Statistics Roundtable: Different Roads to Take for Data Analysis”, ***Quality Progress***, October 2006, 75-76.
9. Anderson-Cook, C. (2007) “Statistics Roundtable: Design of Experiments: A Single Experiment or Sequential Learning”, ***Quality Progress***, March 2007, 71-73.
10. Anderson-Cook, C.M., Borror, C.M. and Montgomery, D.C. (2007) “Response to Letter to the Editor: Comments on Optimal Designs for Second Order Polynomial Models”, ***Journal of Quality Technology*** 39 91-92.

11. Keller-McNulty, S., Wilson, A., Anderson-Cook, C.M.(2007) "Reliability: Editorial for Special Issue on Reliability" ***Statistical Science*** 21 427.
12. Anderson-Cook, C. (2007) "Statistics Roundtable: When Should You Consider a Split-Plot Design?" ***Quality Progress***, October 2007, 57-59.
13. Anderson-Cook, C.M. (2007) "Assessment of Experimental Designs" ***Encyclopedia of Statistics in Quality and Reliability*** 121-127.
14. Anderson-Cook, C.M. (2008) "Statistics Roundtable: More is Better: Inducing More Variation in an Experiment can Lead to Better Understanding" ***Quality Progress***, March 2008, 55-57.
15. Anderson-Cook, C.M. (2008) "Statistics Roundtable: More is Not Always Better: Quality and Lower Dependence Trump Quantity" ***Quality Progress***, October 2008, 63-66.
16. Anderson-Cook, C.M. (2009) "2008 Youden Address: Sequential Experimentation for Meta-Analysis" ***ASQ Statistics Division Newsletter***, Winter 2009.
17. Anderson-Cook, C.M. (2009) "Statistics Roundtable: In A Certain Way: Quantifying Uncertainty for Meaningful and Objective Results" ***Quality Progress***, March 2009, 58-60.
18. Anderson-Cook, C.M. (2009) "Statistics Roundtable: Interval Training: Answering the Right Question with the Right Interval" ***Quality Progress***, October 2009, 58-60.
19. Anderson-Cook, C.M. (2010) "Statistics Roundtable: A Matter of Trust: Balance Confidence in your Model while Avoiding Pitfalls" ***Quality Progress***, March 2010, 56-58.

Conference Proceedings

1. Anderson, C.M. & Wu, C.F.J. (1993) "Dispersion Effects for Factorial Directional Data", ***ASA Conference Proceedings, Section of Quality and Productivity***, p.190-197.
2. Anderson, C.M. & Wu, C.F.J. (1994) "Studying Noise Factors and Dispersion of Directional Data", ***ASA Conference Proceedings, Section on Physical and Engineering Sciences***, p.265-268.
3. Anderson, C.M. (1995) "Modeling Cylindrical Variables", ***ASA Conference Proceedings, Section on Physical and Engineering Sciences***, p.248-251.
4. Anderson-Cook, C.M. (1996) "Modeling One-Way Cylindrical Data", ***ASA Conference Proceedings, Section on Physical and Engineering Sciences*** p.269-274.
5. Anderson-Cook, C.M., Thornton,T. & Robles. R. (1997) "Measuring Hockey Powerplay and Penalty Killing Efficiency: A New Approach", ***ASA Conference Proceedings, Section on Statistics in Sports*** p.11-14.
6. Anderson-Cook, C.M. (1998) "Multi-Way Analysis of Factorial Experiment with a Cylindrical Response", ***ASA Conference Proceedings, Section on Physical and Engineering Sciences*** p.222-227.
7. Anderson-Cook, C.M. & Robinson, T.J. (1999), "Enhancing the Learning Environment with Online Quizzes for Introductory Statistics Courses", ***ASA Conference Proceedings, Section on Statistical Education*** p.89-94.
8. Noble, R.B.*, Anderson-Cook, C.M. & Slesinski, A.J.* (1999), "Mixture Modeling to Determine Factors to Reduce Pink Color Development in Uncured Turkey Breast", ***ASA Conference Proceedings, Section on Biometrics*** p.256-260.
9. Anderson-Cook, C.M. & Noble, R.B. (2000), "Modeling the Joint Distribution of Cylindrical Data", ***ASA Conference Proceedings, Section on Physical and Engineering Sciences*** p.98-103.
10. Anderson-Cook, C.M. & Dorai-Raj, S. (2000), "An Active Learning In-Class Demonstration of Good Experimental Design", ***ASA Conference Proceedings, Section on Statistical Education*** p.181-186.
11. Gantovnik V.B., Anderson-Cook C.M., Gurdal Z., Watson L.T. (2002), "A genetic algorithm with memory for mixed discrete-continuous design optimization", ***9th AIAA/ISSMO Symposium on Multidisciplinary Analysis and Optimization***, AIAA Paper No. 2002-5431.
12. Gantovnik V.B., Anderson-Cook C.M., Gurdal Z., Watson L.T. (2003), "A genetic algorithm with memory for mixed discrete-continuous design optimization", ***44rd***

AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, AIAA Paper No. 2003-1700

13. Bell, A.E., Anderson-Cook, C.M., Spencer, S.J. (2004), "Stereotype Threat in the Engineering Classroom", ***Proceedings of the American Society for Engineering Education Annual Conference and Exposition Paper*** #3192.

Invited Talks

- **Youden Address**: "Sequential Experimentation for Meta-Analyses", *Fall Technical Conference*, October 2008, Phoenix, AZ (Note: The Youden address speaker is chosen based on being "a recognized leader in the development or application of statistical methodologies, extensively promote statistics and the statistical applications to every day problems, be well published, and be a vibrant and passionate speaker."
- "Translating Understanding of a Complex System into a Statistical Model", *Quality and Productivity Research Conference*, June 2008, Madison, WI
- **Keynote Speaker**: "Resource Allocation Strategies for Reliability of Complex Systems", *Conference of Texas Statisticians*, March 2008, San Antonio,TX
- "Resource Allocation Strategies for Reliability of Complex Systems", *Joint Statistical Meetings*, August 2007, Salt Lake City, UT
- "Reliability Modeling and Analysis of Complex Systems Using Multiple Sources of Data", , May 2007, Denver, CO
- "Design Assessment for Split-Plot Designs Incorporating Graphical Methods and Cost", *Design of Experiments: Methods and Applications Conference*, September 2006, Southampton, UK
- "Modeling System Reliability using Various Component and System Data Sources", *First Annual Conference on Quantitative Methods and Statistical Applications*, February 2006, Santa Monica, CA
- "Response Surface Design Evaluation using Mean Square Error Criteria", *Fall Technical Conference*, October 2005, St. Louis, MO
- "Graphical Methods for Design Assessment for a Variety of Types of Experiments", *Fourth International Symposium on Business and Industrial Statistics*, April 2005, Palm Cove, Australia
- "Design Assessment for Split-Plot Designs Incorporating Cost", *Joint Statistical Meetings of the American Statistical Association*, August 2004, Toronto, Ontario, Canada
- "Graphical Methods for Design Assessment for Designs Involving Generalized Linear Models", *Joint Statistical Meetings of the American Statistical Association*, August 2003, San Francisco, CA
- "Graphical Design Assessment for Split-Plot Designs", *Fall Technical Conference*, October 2003, El Paso, TX
- "Three-Dimensional Dispersion Graphs for Mixture-Process Experiments with Control and Noise Variables", *Quality and Productivity Research Conference*, June 2003, Yorktown Heights, NY
- **Plenary Speaker**: "Incorporating Technology into Introductory Statistics Classes", *Appalachian Regional Conference on Teaching Statistics*, March 2003, Johnson City, TN
- "New Measures for Assessing the Desirability of Designs using Scaled Prediction Variance", *Quality and Productivity Research Conference*, June 2002, Tempe, AZ
- "Modifying 2^2 and 2^3 Factorial Designs to Accommodate a Restricted Design Space", *Fall Technical Conference*, October 2001, Toronto, Ontario, Canada.
- "An Alternative Model for Experimental Cylindrical Data", *Third World Congress of Nonlinear Analysts*, July 2000, Catania, Italy
- "Understanding the Influence of Several Input Factors on Cylindrical Responses", *Quality and Productivity Research Conference*, May 1999, Schnectady, NY.

- "Studying Variance for Directional Data with Response Surface Methods", *Southern Region Committee on Statistics Summer Research Conference*, June 1997, Gatlinburg, TN
- "Modeling Dispersion Effects for Directional Data", *INFORMS Annual Meeting.* May 1996, Washington, D.C.
- "Modeling Location Effects from Factorial Experiments with a Directional Response", *Third World Congress of the Bernoulli Society of Mathematical Statistics and Probability* and *57th Annual Meeting of the Institute of Mathematical Statistics.* June 1994, University of North Carolina, Chapel Hill, North Carolina.
- "Modeling Factorial Experiments for a Directional Response", *Conference on Industrial Statistics and Quality Improvement (sponsored by the ASA Section on Quality and Productivity).* August 1993, Oakland University, Rochester, Michigan.

Editorial Contributions

- Associate Editor for Reviews for Journal of Statistics Education, 2007-present
- Editorial Board Member for the Journal of Quality Technology, 2006-present
- Editorial Board Member for Quality and Reliability Engineering International, 2005-present
- Editorial Board Member for Quality Engineering, 2010-present
- Editorial Board Member for Applied Stochastic Models for Business and Industry, 2008-2009
- Associate Editor for Reviews for Journal of the American Statistical Association and the American Statistician, 2002-2007
- Guest Editor for Special Issue on "Six Sigma" in Quality and Reliability Engineering International, 2005
- Invited Associate Editor for Special Issue on "Reliability" in Statistical Science, 2007

Reviewer: Journal of the American Statistical Association, The American Statistician; Technometrics; Journal of Quality Technology; Quality and Reliability Engineering International; Journal of Statistical Education; Computational Statistical and Data Analysis; Journal of Agricultural, Biological and Environmental Statistics; Quality Technology and Quantitative Management; Canadian Journal of Statistics; Biometrical Journal; Journal of Statistical Computation and Simulation; Computational Statistics and Data Analysis; IIE Transactions; Computers and Electronics in Agriculture; Agronomy Journal; Journal of Operations Management; Journal of Atmospheric and Solar-Terrestrial Physics; International Journal of Nanomanufacturing; Australian and New Zealand Journal of Statistics, IEEE Systems Journal, Teaching Statistics

Reviews for Granting Agencies:

National Science Foundation
National Science and Engineering Research Council (Canada)

3. Grants

Los Alamos

- **Project Leader** for the Joint Munitions Project "Complex System Health Assessment" Project, 2010-present ($600,000-$750,000 per year)
- **Project Leader** for the Joint Munitions Project "Munitions Stockpile Reliability Assessment" Project, 2006-2010 ($600,000-$750,000 per year)
- **Co-PI** for National Center for Food Protection & Defense "Analyzing Ingredient-Product Relationships to Enhance Traceability" Project, 2010-2011 ($110,000)

• **PI** and **Project Leader** for Lab-Directed Research and Development Exploratory Research Funding “Statistics for the Engineering and Physical Science” Project, 2006-2008 ($450,000)

• **PI** and **Project Leader** for Lab-Directed Research and Development Exploratory Research Funding “Design Construction and Assessment” Project, 2005-2006 ($98,000)

External

• **Co-PI** with Richard Weyers for Virginia Transportation Research Center Grant “Bridge Deck Service Life Prediction and Costs”, 2002-2004 ($267,460).

• **Collaborator** with R.J. Bodnar for National Science Foundation Grant, "Development of a numerical model for the PVTX properties of Na-K-Ca-Fe-Cl solutions in magmatic/hydrothermal ore depositis", 2002-2004 ($336,500). Responsible for Statistical Analysis.

• **Collaborator** with M.M. Alley and R. Khosla for United States Department of Agriculture, "Developing Environmentally Sustainable and Economically Viable Cropping systems: Crop Yields, Soil Moisture, Residue Management and Nitrate Leaching", 1999-2001 ($270,000). Responsible for Design of Experiments and Statistical Analysis.

• **PI** for Natural Sciences and Engineering Research Council of Canada Grant #OGP0155589 “Non-Parametric and Quality Control Methods for Cylindrical Data”, 1996-2000 ($24,000).

Academic Internal (Virginia Tech and University of Western Ontario)

• **Co-PI** with T.J. Robinson for Virginia Tech Center for Innovation in Learning, "Computer Learning and Self-Assessment with Online Resources and Quizzes for Introductory Statistics Courses", 1999-2000 ($26,000).

• **Co-PI** with T.J. Robinson for Virginia Tech Center for Innovation in Learning, "Computer Learning and Self-Assessment with Online Resources and Quizzes for Introductory Statistics Courses", 1998-1999 ($21,000).

• **PI** for Center for Excellence in Undergraduate Teaching at Virginia Tech Grant, “Five Active Learning Activities to Illustrate Critical Statistical Concepts for Introductory Statistical Service Courses”, 1997 ($5000).

• **Co-PI** with T.J. Robinson for Virginia Tech Center for Excellence in Undergraduate Teaching Teaching-Learning Grant, "Computer Self-Assessment Tests for Introductory Courses", 1997 ($5000).

• **Co-PI** with E.P. Smith and R.H. Myers for a Virginia Water Resource Center Seed Grant, "Statistical Designs for Water Contaminant Mixtures", 1999-2000 ($5000).

• **PI** for Center for Organizational and Technological Advancement Grant “8th Annual Spring Research Conference of Statistics in Quality Industry and Technology” 2001 ($3750).

• **PI** for University of Western Ontario Internal Research Grant #S370A2 “Directional and Cylindrical Data”, 1994-1995 ($3000).

4. Teaching Activity

At Virginia Tech, I taught a variety of course in statistics.

Undergrad:	Statistical Computing (4004), Regression (4214), Statistical Consulting (4964), Statistical Methods I (3005), Biological Statistics I (3615), Introductory Statistics for Engineers (4604)
Grad:	Applied Statistics (5004 - ANOVA, Regression, Categorical Analysis), Design of Experiments I (5204), Structured Process Improvement with Six Sigma (6494), Response Surface Methodology I (5574), Statistical Consulting (5024), Statistics in Research I and II (5615-6), Linear Models (5124)

Other courses taught:

Undergrad:	Statistical Quality Control
Grad:	Industrial Statistics - Quality and Design of Experiments

Student Teaching Evaluations (by year from Virginia Tech)

- Graded on 1-4 scale
- Departmental average is approximately 3.2 out of 4

Year	Courses	Evaluation Score	Department Yearly Average
1996-1997	4604, 4604, 4004, 5616	2.9, 3.0, 3.5, 3.2	3.15
1997-1998	3615, 5574, 4004	3.6, 3.3, 3.4	3.43
1998-1999	5004 (5 cred), 3615, 4004	3.8, 3.1, 4.0	3.66
1999-2000	5004 (5 cred), 4004, 5574	3.8, 4.0, 3.6	3.80
2000-2001	5004 (5 cred), 3005, 4004	3.7, 3.1, 3.6	3.51
2001-2002	5574, 4214, 4004, 5024	3.9, 3.5, 3.7, 3.8	3.71
2002-2003	5024, 4964, 5204	3.5, 3.5, 3.6	3.56

Major Professor for Graduate Students:

Ph.D.

1. Alyaa Zahran "On the Efficiency of Designs for Linear Models in Non-Regular Regions and the Use of Standard Designs for Generalized Linear models" (Virginia Tech, Ph.D. 2002) – E.P. Smith, co-advisor
2. Bennett S. Otieno "An Alternative Estimate of Preferred Direction for Circular Data" (Virginia Tech, Ph.D. 2002)
3. Ayca Ozol-Godfrey "Understanding Scaled Prediction Variance using Graphical Methods for Model Robustness, Measurement Error and Generalized Linear Models for Response Surface Designs" (Virginia Tech, Ph.D. 2004)
4. Li Liang "Graphical Tools, Incorporating Cost and Optimizing Central Composite Designs for Split-Plot Response Surface Methodology Experiments" (Virginia Tech, Ph.D. 2005)
5. Adam Pintar "Frequentist and Bayesian Prediction-Based Model Selection Approaches for Linear and Generalized Linear Models" (Iowa State University Ph.D 2010)

Masters (Thesis)

1. Luigi DiSerio (Masters 1995, UWO)
2. Randy Robles (Masters 1996, UWO)
3. Trevor Kirkpatrick (Masters, Civil Engineering 2001) – co-advisor with R.E. Weyers
4. Bradley Atkinson (Masters, Geology 2002) – co-advisor with R. Bodnar
5. Andrei Ramniceanu (Masters, Civil Engineering 2004) – co-advisor with R.E. Weyers

Graduate Student Committees:

Ph.D. - Statistics

1. Ki-Ho Kim, 1997
2. Hefang Lin 1999
3. Alden Starnes 1999
4. Robert Noble 2000
5. David Burt 2000
6. Sam Wilcock 2001
7. Megan Waterman 2002
8. Seth Clark 2002
9. Yangping Wang 2002
10. Hong Liang 2002
11. Ed Boone 2003
12. David Lawrence 2003
13. James D. Williams 2004
14. Peter A. Parker 2005

Ph.D. - Non-Statistics

1. Joan Gaidos 1999 (Crop and Soil)
2. Wes Schilling 2002 (Food Sciences)
3. Heidi Goldfarb 2003 (Industrial Systems Eng, ASU)
4. Pornthipa Ongkunaruk 2005 (Industrial Systems Eng.)
5. David Adams 2005 (Computer Sciences)
6. Eric Monroe 2009 (Industrial Systems Eng, ASU)

15. Jessica Chapman 2008 (Statistics, Iowa State University)

Masters – Statistics (* = committee head)

1. Alicia Alejandro 1998
2. Michelle Volpato 1998
3. Olaf Kuelger 1998
4. Pam Norris* 1999
5. Paul Kirnos 1999
6. Ellen Rachel Shelton* 1999
7. Keun Pyo Kim 1999
8. Amy Lanning* 2000
9. Dawn Robinson 2000
10. Celia Eicheldinger* 2000
11. Kat Tucker* 2000
12. Ken Keane 2000
13. Marice Dorsey* 2000
14. Xiao Yang 2000
15. Brian Scott 2001
16. Jim Westfall 2001
17. Paula Johnson* 2001
18. Brooke Marshall 2001

Masters – Non-Statistics

1. Alan Sleskinski 1998 (Food Sciences)
2. Karl Sheldon 2000 (Mechanical Engineering)
3. Brian Jones 2001 (Crop and Soil)
4. Wes Schilling (Civil Engineering)

19. Kim Kimbleton* 2001
20. Travis Brendan 2001
21. Jane Wang* 2001
22. Kevin Shropshire* 2001
23. Wes Schilling* 2002
24. Rachelle Koudelik 2002
25. Jason Hennig 2003
26. Peter Boyer* 2003
27. Peter Parker 2003
28. Joel Smith* 2003
29. Yuqiong Liu* 2003
30. Amy McGregor* 2003

5. Consulting Activity

• Consultant for Department of Statistics Consulting Unit, Virginia Tech, 08/96 to 06/2004 (averaging over 200 hours per year). Departments at Virginia Tech consulted with:

Accounting	Aerospace Engineering	Agricultural Economics
Biology	Biochemistry	Biomedical Sciences
Chemistry	Civil Engineering	Computer Science
Crop and Soil Sciences	Electrical Engineering	Entomology
Fisheries and Wildlife	Food Sciences	Forestry
Geological Sciences	Horticulture	Hospitality and Tourism
Human Nutrition	Industrial Systems Engineering	Management Sciences
Marketing	Mechanical Engineering	Plant Pathology
Psychology	Sociology	Veterinary Medicine

• Industrial Consultant for Eli Lilly Pharmaceutical, Elanco Animal Pharmaceuticals, Novozymes Biologicals.

• Consultant for *Statlab*, the Department of Statistical and Actuarial Sciences, University of Western Ontario Consulting Unit, 09-12/95, 09-12/94.

• Research Assistant for Statistical Consulting Unit, Department of Statistics and Actuarial Science, University of Waterloo, 05-08/92, 01-04/91, 05-08/90.

• Research Assistant for IIQP (Institute for the Improvement of Quality and Productivity), University of Waterloo, 05-08/93, 09-12/92, 05-08/91, 09-12/90.

Book Reviews

1. Anderson-Cook, C.M. (1997) *Experimental Design and Model Choice* by H. Toutenburg, ***Journal of Statistical Planning and Inference*** 59, 187-189.
2. Anderson-Cook, C.M. (1997) *Linear Models: A Mean Model Approach* by B.K. Moser, ***Journal of Statistical Planning and Inference*** 64, 153-155.

3. Anderson-Cook, C.M. (1999) *Statistical Distributions in Engineering,* by Karl Bury, ***Journal of Statistical Computing and Simulation*** 64, 383-387.
4. Anderson-Cook, C.M. (1999) *Response Surface: Design and* Analyses by A.I. Khuri & J.A. Cornell, ***Journal of Statistical Planning and Inference*** 79, 175-177.
5. Anderson-Cook, C.M. (2001) *Data Analysis by Resampling: Concepts and Applications,* by Clifford E. Lunneborg, ***Journal of the American Statistical Association*** 96 776-777.
6. Anderson-Cook, C.M. (2002) *Statistical Consulting: A Guide to Effective Communication,* ***Technometrics*** 44, 89-90.
7. Anderson-Cook, C.M. (2002) *Statistical Consulting* by J. Cabrera and A. McDougall, ***The American Statistician*** 56 329.
8. Anderson-Cook, C.M. (2003) *Concise Handbook of Experimental Methods for the Behavioral and Biological Sciences* by J. E. Gould, ***Journal of the American Statistical Association*** 98 249.
9. Anderson-Cook, C.M. (2003) *Interpreting Quantitative Data* by David Byrne, ***Journal of the American Statistical Association*** 98 492.
10. Anderson-Cook, C.M. (2003) *Statistical Analysis of Designed Experiments (2nd Ed.)* by H. Toutenburg***, Journal of the American Statistical Association*** 98 770-771.
11. Anderson-Cook, C.M. (2004) *Regression and ANOVA: An Integrated Approach Using SAS Software* by K.E. Muller and B.A. Fetterman ***The American Statistician*** 58 172-173.
12. Anderson-Cook, C.M. (2004) *A Primer on Statistical Distributions* by N. Balakrishnan and V.B. Nevzorov ***Journal of the American Statistical Association*** 99 568.
13. Anderson-Cook, C.M. (2004) *Data Analysis and Graphics Using R: An Example-Based Approach* by J. Maindonald and J. Braun ***Journal of the American Statistical Association*** 99 901-902.
14. Anderson-Cook, C.M. (2004) *Statistical Tools for Nonlinear Regression: A Practical Guide with S-PLUS and R Examples (2nd Ed.)* by S. Huet, A. Bouvier, M.-A. Poursat and E. Jolivet ***Journal of the American Statistical Association*** 99 902.
15. Anderson-Cook, C.M. (2004) *Handbook of Statistics 22: Statistics in Industry* by R. Khattree and C.R. Rao (Ed.) ***Journal of the American Statistical Association*** 99 904.
16. Anderson-Cook, C.M. (2004) *Common Errors in Statistics (and How to Avoid Them)* by P.I. Good and J. W. Hardin ***The American Statistician*** 58 359.
17. Anderson-Cook, C.M. (2004) *Statistical Methods for Six Sigma in R&D and Manufacturing* by A. M. Joglekar ***Journal of the American Statistical Association*** 99 1205-1206.
18. Anderson-Cook, C.M. (2004) *Experimental and Quasi-Experimental Designs for Generalized Causal Inference* by W.R. Shadish, T.D. Cook, D.T. Campbell ***Journal of the American Statistical Association*** 100 708.
19. Anderson-Cook, C.M. (2004) *Planning, Construction and Statistical Analysis of Comparative Experiments* by F.G. Giesbrecht, M.L. Gumpertz ***Journal of the American Statistical Association*** 100 708-709.
20. Anderson-Cook, C.M. (2005) *Practical Genetic Algorithms (2nd Ed)* by R.L. Haupt ***Journal of the American Statistical Association*** 100 1099.
21. Anderson-Cook, C.M. (2005) *The Chicago Guide to Writing about Multivariate Analysis* by J.E. Miller ***The American Statistician*** 59 274.
22. Anderson-Cook, C.M. (2005) *More Damned Lies and Statistics: How Numbers Confuse Public Issues* by J. Best ***The American Statistician*** 59 274-275.
23. Anderson-Cook, C.M. (2005) *Chance: A Guide to Gambling, Love, the Stock Market, & Just About Everything Else* by A.D. Aczel ***The American Statistician*** 59 274-275.
24. Anderson-Cook, C.M. (2006) *The Challenge of Developing Statistical Literacy, Reasoning and Thinking* by D. Ben-Zvi and J. Garfield ***The American Statistician*** 60 99.
25. Anderson-Cook, C.M. (2006) *The Chicago Guide to Writing about Multivariate Analysis* by J.E. Miller ***The American Statistician*** 60 203-204.

26. Anderson-Cook, C.M. (2006) *Statistical Design of Experiments with Engineering Applications* by K. Rekab and M. Shaikh ***Journal of the American Statistical Association*** 101 396-397.
27. Anderson-Cook, C.M. (2006) *Elementary Statistical Process Control* by J.T. Burr ***Journal of the American Statistical Association*** 101 402.
28. Anderson-Cook, C.M. (2006) *Quantitative Risk Management: Concepts, Techniques, and Tools* by A.J. McNeil, R. Frey, P. Embrechts ***Journal of the American Statistical Association*** 101 1731-1732.
29. Anderson-Cook, C.M. (2006) *Functional Approach to Optimal Experimental Design* by V.B. Melas ***Journal of the American Statistical Association*** 102 386.
30. Anderson-Cook, C.M. (2007) *Generalized Additive Models: An Introduction with R* by Simon N. Wood ***Journal of the American Statistical Association*** 102 760-761.
31. Anderson-Cook, C.M. (2007) *Quality by Experimental Design (3rd ed.)* by T.B. Barker ***The American Statistician*** 61 183-184.
32. Anderson-Cook, C.M. (2007) *Six Sigma: Quality Improvement with MINITAB* by G.R. Henderson ***The American Statistician*** 61 185.
33. Anderson-Cook, C.M. (2007) *A Modern Theory of Factorial Designs* by R. Mukerjee, C.F. J. Wu ***Journal of the American Statistical Association*** 102 765.
34. Anderson-Cook, C.M. (2007) *Variations on Split Plot and Split Block Experiment Designs* by W.T. Federer and F. King ***Journal of Quality Technology*** 39 296-297.
35. Anderson-Cook, C.M. (2007) *Visual Statistics: Seeing Data with Dynamic Interactive Graphics* by F.W. Young, P.M. Valero-0Mora, M. Friendly ***The American Statistician*** 61 278.
36. Anderson-Cook, C.M. (2008) *Modern Experimental Design* by T.P. Ryan ***Journal of the American Statistical Association*** 103 426-427.
37. Anderson-Cook, C.M. (2008) *Reliability, Life Testing, and Prediction of Service Lives* by S.C. Saunders ***Journal of the American Statistical Association*** 103 887-888.
38. Anderson-Cook, C.M. (2008) *Response Surfaces, Mixtures, and Ridge Analyses (2nd Ed)* by G.E.P. Box and N.R. Draper ***Journal of the American Statistical Association*** 103 888.
39. Anderson-Cook, C.M. (2008) *Optimum Experimental Designs, With SAS* by A.C. Atkinson, A.N. Doney and R.D. Tobias ***Journal of the American Statistical Association*** 103 1327-1328.
40. Anderson-Cook, C.M. (2008) *Modern Engineering Statistics* by T.P. Ryan ***The American Statistician*** 62 270-271.
41. Anderson-Cook, C.M. (2009) *Statistical Design* by G. Casella ***Journal of the American Statistical Association*** 104 865-866.

Telegraphic Reviews

1. Anderson-Cook, C.M. (2002) *Model Selection by P. Lahiri,* ***Journal of the American Statistical Association*** 97 928.
2. Anderson-Cook, C.M. (2002) *Response Surface: Process and Product Optimization* by R.H. Myers and D.C. Montgomery, ***Journal of the American Statistical Association*** 97 1216.
3. Anderson-Cook, C.M. (2003) *Statistical Process Control: The Deming Paradigm and Beyond* by J.R. Thompson and J. Koronacki, ***Journal of the American Statistical Association*** 98 499.
4. Anderson-Cook, C.M. (2003) *The A to Z of Mathematics: A Basic Guide* by T.H. Sidebotham, ***The American Statistician*** 57 218.
5. Anderson-Cook, C.M. (2003) *Cambridge Dictionary of Statistics (2nd Ed.)* by B.S. Everitt, ***Journal of the American Statistical Association*** 98 777-778.
6. Anderson-Cook, C.M. and Alley, M.M. (2003) *Statistical Methods in Agricultural and Experimental Biology* by R. Mead, R.N. Curnow, and A.M. Hasted ***The American Statistician*** 57 317.
7. Anderson-Cook, C.M. (2004) *Design and Analysis of Cross-over Trials (2nd Ed.)* by B. Jones and M.G. Kenward ***Journal of the American Statistical Association*** 99 300.

8. Anderson-Cook, C.M. (2004) *CRC Standard Mathematical Tables and Formulae* by D. Zwillinger ***Journal of the American Statistical Association*** 99 300-301.
9. Anderson-Cook, C.M. (2004) *An Introduction to Multivariate Statistical Analyses (3rd. Ed.)* by T.W. Anderson ***Journal of the American Statistical Association*** 99 907-908.
10. Anderson-Cook, C.M. (2004) *Handbook for Research in Cooperative Education and Internships* by P.L. Linn, A. Howard and E. Miller ***Journal of the American Statistical Association*** 99 908.
11. Anderson-Cook, C.M. (2004) *System Reliability Theory: Statistical Methods, and Applications (2nd Ed.)* by M. Rausand and A Hoyland ***Journal of the American Statistical Association*** 99 1206.
12. Anderson-Cook, C.M. (2004) *Web Development of SAS by Example* by F. Pratter ***Journal of the American Statistical Association*** 100 357.
13. Anderson-Cook, C.M. (2004) *Handbook of Statistics, Volume 23: Advances in Survival Analysis* by N. Balakrishnan and C.R. Rao ***Journal of the American Statistical Association*** 100 1099.
14. Anderson-Cook, C.M. (2005) *Carpenter's Complete Guide to SAS Macro Language* by A. Carpenter ***Journal of the American Statistical Association*** 100 1100.
15. Anderson-Cook, C.M. (2005) *Introduction to Applied Statistics: A Modelling Approach (2nd Ed.)* by J.K. Lindsey ***The American Statistician*** 59 278.
16. Anderson-Cook, C.M. (2006) *Group-Based Modeling of Development* by D.S. Nagin ***Journal of the American Statistical Association*** 101 405.
17. Anderson-Cook, C.M. (2006) *A Step-by-Step Approach to Using SAS for Univariate and Multivariate Statistics, 2nd Ed* by N. O'Rourke, L. Hatcher, E.J. Stephanski ***The American Statistician*** 60 207.
18. Anderson-Cook, C.M. (2006) *S+Functional Data Analysis User's Guide* by D.B. Clarkson, C. Fraley, C.C. Gu, J.O. Ramsay ***The American Statistician*** 60 207.
19. Anderson-Cook, C.M. (2007) *The Cambridge Dictionary of Statistics* by B.S. Everitt ***Journal of the American Statistical Association*** 102 769.
20. Anderson-Cook, C.M. (2007) *Advances in Ranking and Selection, Multiple Comparisons, and Reliability: Methodology and Applications* ***Journal of the American Statistical Association*** 102 391.
21. Anderson-Cook, C.M. (2007) *Screening: Methods for Experimentation in Industry, Drug Discovery, and Genetics* by A. Dean and S. Lewis ***Journal of the American Statistical Association*** 102 392.
22. Anderson-Cook, C.M. (2007) *Statistical Methods in Counterterrorism: Game Theory, Modeling, Syndromic Surveillance, and Biometric Authentication* by A.G. Wilson, G.D. Wilson, D.H. Olwell ***Journal of the American Statistical Association*** 102 768-769.
23. Anderson-Cook, C.M. (2007) *A Dictionary of Statistics* by G. Upton and I. Cook ***The American Statistician*** 60 102.
24. Anderson-Cook, C.M. (2008) *Experimental Designs: Exercises and Solutions* by D.G. Kabe, A.K. Gupta ***Journal of the American Statistical Association*** 103 434.
25. Anderson-Cook, C.M. (2008) *Applied Regression Analysis and Other Multivariate Methods* by D.G. Kleinbaum, L.L. Kupper, A. Nizam, K.E. Muller ***The American Statistician*** 62 94.
26. Anderson-Cook, C.M. (2008) *Data Analysis and Graphics using R: An Example-Based Approach* by J. Maindonald, J. Braun ***The American Statistician*** 62 94.
27. Anderson-Cook, C.M. (2008) *A Quick Course in Statistical Process Control* by M. Norton ***The American Statistician*** 62 183.

6. Other Contributions

General

• Chair (2010-11) and Chair-Elect (2009-2010) for Statistics Division of the American Society for Quality

• Chair-Elect (2005),Chair (2006) and Past Chair (2007) for Section on Quality & Productivity for the American Statistical Association.

• Quality Progress Statistical Roundtable Column contributor (2004 to present) - write 1-2 columns per year)

• Program Chair (2003) and Program Chair-Elect (2002) for Section on Quality and Productivity for the American Statistical Association.

• Served on Committee on Outstanding Application Award for the American Statistical Association, 2006-2008.

• Co-developer of Statistical Java (an interactive, web-based tool for helping with instruction of fundamental statistical concepts: http://www.causeweb.org/repository/statjava/)

• Co-Chair of Quality & Productivity Research Conference, Santa Fe, June 2007.

• Co-Chair of Design and Analysis of Experiments Conference, Santa Fe, October 2005.

• Local Arrangement Chair for Spring Research Conference, Roanoke, June 2001.

• Served on Gertrude Cox Scholarship Selection Committee, 2001-2002.

• Elected Representative-At-Large for Caucus for Women in Statistics, 1998-2000

• Guest Speaker at Advanced Placement Training Course for High School Teachers of Statistics, 2002-2003.

Virginia Tech Departmental Service Work

• Developer and Editor for Department Newsletter, 2000-2004.

• Serving on Departmental Undergraduate Committee, 1998-2004.

• Serving on Graduate Student Qualifying Exam Committee, 1998-2004.

• Serving on Departmental Personnel Committee, 2003-2004.

• Served on 50th Anniversary Conference Committee, 1998-1999.

• Chair & Served on Colloquium Committee, 1996-1998.

• Served on Departmental Head Search Committee, 1998-99.

• Served on Departmental Search Committee, 1996-97, 1998-99, 1999-2000.

• Development/maintenance of Department of Statistics WebPage, 1997-2004.

Professional Memberships

• Elected Fellow of the American Statistical Association

• American Society for Quality, Senior Member

• Elected member of American Men and Women of Science

• American Association for the Advancement of Science, Member

• Mu Sigma Rho, National Statistical Honor Society

7. Awards

- Department of Energy Defense Programs Award of Excellence for significant contributions to the Stockpile Stewardship Program through contributions to the Joint Munitions Program, 2009
- Led Los Alamos portion of the Joint Project between the Department of Statistics at Iowa State University and the Statistical Sciences Group at Los Alamos National Laboratory, which was selected as the 2009 American Statistical Association SPAIG (Statistical Partnerships among Academe, Industry and Government) Award recipient (Award recognizes outstanding partnerships established between academe and business, industry, & government organizations)

- Los Alamos National Laboratory STAR award, 2009 (Award in recognition of those who go above and beyond the call of duty in the performance of their job functions, women who have achieved scientific or technical success, and women who make important contributions to the community)
- Selected to give the Youden Address at the 2008 Fall Technical Conference in Phoenix, AZ.
- Los Alamos National Laboratory Achievement Award for Conference Committee of the Quality and Productivity Research Conference in Santa Fe, 2007.
- Honorable Mention for Best Paper from the Section of Physical and Engineering Statistics at the Joint Statistical Meetings, 2005 for "Design Assessment for Split-Plot Designs Incorporating Cost"
- Best Paper in the Propulsion Session at the American Helicopter Society conference, 2001 for "Analysis Methods To Control Performance Variability and Costs in Airplane Turbine Engine Manufacturing" with Karl Sheldon and W.F. O'Brien.
- Best Contributed Paper from the Section of Statistical Education at the Joint Statistical Meetings, 2000 for "A Teaching Exercise for the Basic Concepts of Experimental Design" with Sundar Dorai-Raj.
- Elected to University Students' Council at the University of Western Ontario Teaching Honor Roll, 1995-1996.
- Gertrude M. Cox Scholarship (1991) Awarded by the American Statistical Association, for "academic excellence and future promise."
- NSERC Postgraduate Scholarship (1989-93)
- University of Waterloo Provost Scholarship (1991-93)
- University of Waterloo Descartes Fellowship (1984-89)